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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,399	08/28/2003	Thomas Geoffrey Knight	K085881	6762

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/650,399	<b>Applicant(s)</b> KNIGHT, THOMAS GEOFFREY	
	<b>Examiner</b> Thai-Ba Trieu	<b>Art Unit</b> 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Information Disclosure Statement*

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### *Specification*

#### **1. IN THE ABSTRACT:**

Since the abstract is too short, applicant is required to submit a substitute abstract to meet the requirement set forth below.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet **within the range of 50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

**2. IN THE SPECIFICATION:**

The disclosure is objected to because of the following informalities:

- On Page 3, line 1, "**CAA**" should be replaced by -- **CCA** --.

Appropriate correction is required.

***Claim Suggestions***

Applicant is suggested to correct the following minor informalities:

1. Claim 2 should be replaced as follows:

-- The method for increasing power to a centrifugal air compressor of claim 1, wherein each of said more than one electric motor [[comprises]] is connected to/ is supplied by [[a]] an individual direct current energy source.--.

2. Claim 3 should be replaced as follows:

-- The method for increasing power to a centrifugal air compressor of claim 2 wherein said direct current energy source is a battery.--.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Rostron (Patent Number 5,043,617).***

**Regarding claim 1**, Rostron discloses a method for increasing power to a air compressor, said method comprising utilizing more than one electric motor (20) to power said air compressor (13) (See Figures 1-5).

**Regarding claim 4**, Rostron discloses a method for increasing power to a air compressor, said method comprising connecting a compressor shaft (24, 28) of said air compressor (13) to a housing (14) containing two or more pulleys (22) driven by two more electric motors (See Figures 1, 2a, 2b, and 3).

***Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Zinsmeyer (Patent Number 4,514,991).***

Zinsmeyer discloses a method for increasing power to a air compressor, said method comprising utilizing more than one electric motor (10, 11) to power said air compressor (12) (See Figures 1-2).

***Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Middlebrooks, Jr. (Patent Number 2,839,038).***

Middlebrooks, Jr. discloses a method for increasing power to a air compressor, said method comprising utilizing more than one electric motor (62, 62') to power said air compressor (See Figure 11, Column 5, lines 50-52).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rostron (Patent Number 5,043,617).***

Rostron discloses the invention as recited above; however, fails to disclose the electric motor comprising a direct current energy source.

It is the examiner's position that the electric motor comprising a direct current energy source in the above claimed positions would have been obvious to one having ordinary skill in the art. More specifically, one having ordinary skill in the art would have utilized the AC motor or DC motor. The use of the AC motor or DC motor would depend on the device or the environment that these motors are to be applied for, i.e. the AC motor is applied for the house; whereas, the DC motor is used for vehicles.

***Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rostron (Patent Number 5,043,617); in view of Hans et al.(Patent Number GB 2 023 731 A).***

Rostron discloses the invention as recited above; however, fails to disclose the electric motor comprising a direct current energy source.

Hans teaches that it is conventional in the electric pump art, to utilize the electric motor comprising a direct current energy source (7,9) (See Figures 1-2, Page 2, line 24-29).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the electric motor comprising a direct current energy source, as taught by Hans, to improve the efficiency of the Rostron air compressor.

***Claims 2-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostron (Patent Number 5,043,617); in view of Kibort (Patent Number 6,328,024 B1).***

**Regarding claims 2-3,** Rostron discloses the invention as recited above; however, fails to disclose the electric motor comprising a direct current energy source, wherein said direct current energy source is a battery.

Kibort teaches that it is conventional in the electric supercharger art, to utilize the electric motor comprising a direct current energy source, wherein said direct current energy source is a battery (29) (See Figure 2, Column 1, lines 32-36, and Column 4, lines 6-9).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the electric motor comprising a direct current energy source, wherein said direct current energy source is a battery, as taught by Kibort, to improve the efficiency of the Rostron air compressor, since the use thereof would have provided high current input for running the air compressor at high speed.

**Regarding claims 5-6,** Rostron discloses an electric motor driven air compressor comprising:

a housing (14) that contains two or more pulleys (32) and on drive belt (33) (See Figure 5);

two or more electric motors(20) (See Figures 2a, 2b, 3 and 5);

an air compressor (13) (See Figure1);

wherein each of said two or more electric motors (20) drives one of said two or more pulleys (22, 32);

wherein said two or more pulleys (32) drive said one drive belt (33) (See Figure 5); and

wherein said one drive belt powers said air compressor (13) (See Figures 1 and 5).

However, Rostron fails to disclose the electric motor comprising a direct current energy source, wherein said direct current energy source is a battery.

Kibort teaches that it is conventional in the electric supercharger art, to utilize the electric motor comprising a direct current energy source, wherein said direct current energy source is a battery (29) (See Figure 2, Column 1, lines 32-36, and Column 4, lines 6-9).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the electric motor comprising a direct current energy source, wherein said direct current energy source is a battery, as taught by



Kibort, to improve the efficiency of the Rostron air compressor, since the use thereof would have provided high current input for running the air compressor at high speed.

***Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rostron (Patent Number 5,043,617); in view of Hans et al.(Patent Number GB 2 023 731 A).***

Rostron discloses the invention as recited above; however, fails to disclose said two or more electric motors being individually connected to a direct current energy source.

Hans teaches that it is conventional in the electric pump art, to utilize said two or more electric motors (7, 9) being individually connected to a direct current energy source (See Figures 1-2, Page 2, line 24-29).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized said two or more electric motors being individually connected to a direct current energy source, as taught by Hans, to improve the efficiency of the Rostron air compressor.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- McCreary (US Patent Number 4,445,337) discloses an engine with speed responsive multi-ratio turbocharger drive.

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- De Valroger (US Patent Number 4,485,310) discloses a supercharger driven by an electric motor.

- Martin (US Patent Number 6,615,809 B1) discloses an external drive supercharger.

- Wiseman (US Patent Number 2,741,234) discloses an aircraft engine having a crankshaft, which has secured thereon a pulley 16, drivingly connected with a pulley 17 by a belt 18.

- Cook (US Patent number 4,724,817) discloses an apparatus and technique for supercharging combustion engines.

- Heimark (US patent Number 6,082,340) discloses two-speed supercharger.

- Martinez et al. (US Patent Number 5,080,635) disclose an electro-mechanical drive device equipped with safety means.

- Farmer (US Patent Number 3,561,544) discloses a parallel shaft driven machine tool way or quill unit.

- Graham et al. (US Patent Number 6,461,265 B1) discloses a coaxial gearbox.

- Blackburn (US Patent Number 2,936,107) discloses a high vacuum device.

- Feldhausen (US Patent Number 2,252,762) discloses a drive for printing press and other machines.


- Onuma (Patent Number JP 63180753 A) discloses a speed change-driving device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB  
June 8, 2004

  
Thai-Ba Trieu  
Patent Examiner  
Art Unit 3748